

# Bacteria that Causes Rare Disease Melioidosis Discovered in U.S. Environmental Samples

## Press Release

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The Centers for Disease Control and Prevention (CDC) has identified for the first time in domestic environmental samples the bacteria that causes a rare and serious disease called [melioidosis](#). The bacteria, *Burkholderia pseudomallei* or *B. pseudomallei*, was identified through sampling of soil and water in the Gulf Coast region of Mississippi.

It is unclear how long the bacteria has been in the environment and where else it might be found in the U.S.; however, modeling suggests that the environmental conditions found in the Gulf Coast states are conducive to the growth of *B. pseudomallei*. CDC is alerting clinicians throughout the country of this discovery through a national health advisory, reminding them to be aware of the signs and symptoms of melioidosis and to consider melioidosis in patients that present with symptoms of the disease.

Two unrelated individuals living in close geographic proximity in the Gulf Coast region of the southern United States became sick with melioidosis two years apart—in 2020 and 2022—prompting state health officials and CDC to take samples and test household products, soil, and water in and around both patients' homes, with permission. Three of the samples taken from soil and puddle water in 2022 tested positive at CDC for *B. pseudomallei*, indicating bacteria from the environment was the likely source of infection for both individuals and has been present in the area since at least 2020.

Melioidosis is caused by direct contact with *B. pseudomallei*, which is found in contaminated soil and water. Among the average of 12 melioidosis cases diagnosed in the United States each year, most have occurred in people with recent travel to a country where this bacteria is endemic. Cases of melioidosis have also been linked to contaminated commercial products imported from disease-endemic countries. This recently occurred in 2021 when a cluster of four cases in four states were linked to an imported contaminated [aromatherapy spray](#)

Melioidosis has a wide range of nonspecific symptoms like fever, joint pain, and headaches and can cause conditions that include pneumonia, abscess formation, or blood infections. Worldwide, melioidosis is fatal in 10 – 50% of those infected. *B. pseudomallei* has historically been found in tropical and sub-tropical areas such as South and Southeast Asia, northern Australia, and parts of Central and South America and Puerto Rico. Given the very small number of cases of melioidosis identified historically in the United States, CDC believes the risk of melioidosis for the general population continues to be very low.

Individuals living in the Gulf Coast of Mississippi and who have health conditions that may put them at higher risk—such as diabetes, chronic kidney disease, chronic lung disease, or excessive alcohol use—should take precautions to protect themselves:

- Avoid contact with soil or muddy water, particularly after heavy rains, and protect open wounds with waterproof dressings.
- Wear waterproof boots when gardening, doing yard work, or doing agricultural work, which can prevent infection through the feet and lower legs—particularly after flooding or storms.
- Wear gloves to protect the hands when working directly with soil.

CDC encourages healthcare providers in the Gulf Coast region of the southern United States as well as clinicians throughout the country to learn about melioidosis and to be aware of the potential for more cases as CDC and partners continue to investigate the geographic spread of *B. pseudomallei*. As a nationally notifiable disease, melioidosis should always be reported to the state health department.

For more information, visit CDC's [melioidosis](#) website.

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES [↗](#)

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